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In the Supreme Court of the United States

OCTOBER TERM, A. D. 1947.

No. 280

FUNK BROTHERS SEED COMPANY,
Petitioner,

vs.

KALO INOCULANT COMPANY,
Respondent.

PETITION FOR WRIT OF CERTIORARI
To the United States Circuit Court of Appeals
For the Seventh Circuit
and
BRIEF IN SUPPORT OF PETITION.

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In the Supreme Court of the United States

OCTOBER TERM, A. D. 1947.

No. .....

FUNK BROTHERS SEED COMPANY,

Petitioner,

vs.

KALO INOCULANT COMPANY,

Respondent.

PETITION FOR A WRIT OF CERTIORARI
To the United States Circuit Court of Appeals For the Seventh Circuit.

To the Honorable The Chief Justice and Associate Justices of the Supreme Court of the United States:

Your petitioner, Funk Brothers Seed Company, respectfully prays that a writ of certiorari issue to the United States Circuit Court of Appeals for the Seventh Circuit to review the decree of that Court holding valid and infringed the claims in suit[1] of United States Letters Patent No. 2,200,532 to Varley Sherman Bond, which decree was entered on June 12, 1947. (R. 817.)

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[1] The claims in suit are product claims 1, 3, 4, 5, 6, 7, 8, 13 and 14. Claim 4 is an example:

"An inoculant for leguminous plants comprising a plurality of selected mutually non-inhibitive strains of different species of bacteria of the genus Rhizobium, said strains being unaffected by each other in respect to their ability to fix nitrogen in the leguminous plant for which they are specific."

Please note that the claims describe the product in terms of function. *Halliburton Oil Well Cementing Co. v. Walker*, 329 U. S. 1, 9.

SUMMARY STATEMENT OF THE MATTER INVOLVED.

The issue is whether you can secure a patent monopoly on a discovery of a law of nature and how it works, the patentee adding nothing to the operation of the law of nature either in mechanism or method. To permit such patenting is contrary to R. S. 4886.[1] There is conflict of opinion below on this issue. (R. 744), (R. 817.)

Nature of the Subject Matter.

The patentee claims as a patentable discovery that he can improve the old combination of different types of bacteria in a compost used to fix nitrogen in plants by his discovery that some bacteria do not adversely affect others according to the law of their nature. He selects, by old and conventional tests, those that do not so affect one another according to the law of their nature and discards those that do. He puts together those that do not affect one another in the old two bacteria combination.

This case is of great public and national interest as it monopolizes the present methods of raising clover, alfalfa, soy beans, etc., throughout the nation by the use of inoculating bacteria cultures to fix nitrogen in the plants—an old method of agriculture.

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[1] R. S. 4886, 35 U. S. C. A. Sec. 31.

"Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, or who has invented or discovered and asexually reproduced any distinct and new variety of plant, other than a tuber-propagated plant, not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, or more than one year prior to his application, and not in public use or on sale in this country for more than one year prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceeding had, obtain a patent therefor. R. S. § 4886; March 3, 1897, c. 391, § 1, 29 Stat. 692; May 23, 1930, c. 312, § 1, 46 Stat. 376; Aug. 5, 1939, c. 450, § 1, 53 Stat. 1212."

The Bond patent relates to a product known as an inoculant that may be applied to seeds of leguminous plants such as alfalfa, clover, soy beans, etc., before the seeds are placed in the ground. This inoculant for leguminous plants comprises a plurality of selected mutually non-inhibitive strains of different species of bacteria, the strains being unaffected by each other in respect to their ability to fix nitrogen in the leguminous plant for which the strains are specific. As Bond says:

> "* * * said cultures being substantially unaffected by each other in respect to their ability to fix nitrogen in the leguminous plant for which they are specific." (Claim 1, R. 779.)

The root nodule bacteria exist in nature as a plurality of individual species classified generally into six species of root nodule or legume bacteria which will infect six fairly well defined cross-inoculation groups of legumes. (R. 748, findings 9 and 10.)[1] Each species of root nodule bacteria includes innumerable individual strains of bacteria which vary in their efficiency, or ability to beneficially affect the plant to which they are specific by fixing nitrogen in the plant, "are widely spread in nature" (R. 773, column 1, line 45) and are natural inhabitants of the soil.

Bond's claimed discovery is that by conventional tests he has found that the nature of certain bacteria is that they do not affect each other while others do affect each other. He claims the combination of such selected bacteria which do not affect each other, but still operate according to the law of their nature.

[1]

Species	Cross-inoculation Group
Rhizobium trifolii	Red clover, crimson clover, mammoth clover, alsike clover
Rhizobium meliloti	Alfalfa, white and yellow sweet clovers
Rhizobium phaseoli	Garden beans
Rhizobium leguminosarum	Garden peas and vetch
Rhizobium lupini	Lupines
Rhizobium japonicum	Soy beans

The old steps in the preparation of the alleged "new" product of Bond are:

1. Bond obtains bacteria from nature by isolating a bacterium from a species of the legumes by well-known laboratory technique that was in existence before the advent of the Bond patent. (R. 775, column 1, lines 17-22; R. 116.)

2. After Bond isolates the bacterium he cultures the bacterium to cause it to reproduce and multiply many times, this also by laboratory technique known before the advent of the Bond patent (R. 115-116), and which, as admitted by Bond, does not in any way modify or change the natural characteristics of the bacteria from that as it existed in nature. (R. 116.)

3. Bond then performs standard routine tests known in the art before the Bond patent (R. 116), to determine the efficiency of the bacteria to fix nitrogen in the leguminous plant for which it is specific, as only efficient strains of bacteria are used by manufacturers of inoculants. (R. 120, 123.)

4. Bond follows the foregoing procedure with respect to several individual strains of bacteria for each species of the legumes, such as clover or alfalfa or soy beans or peas, and selects for further testing the strains of bacteria that have most efficiently fixed nitrogen in the legume for which the bacteria is specific.

5. To make the "Bond" composite inoculant, Bond performs additional tests under prior well-known standard technique wherein a species of the leguminous plants is inoculated with bacteria from a single culture and compared for nitrogen fixation efficiency with the same species of leguminous plant inoculated with an inoculant containing two or more independent species of bacteria (R. 776, column 2, line 63). If the bacteria in the inoculant that contains two independent species function in exactly the same way

they do in nature, having no effect upon one another in their ability to fix nitrogen, then this particular strain of bacteria is selected by Bond as an "alpha" strain for use in his composite inoculant. (R. 777, column 1, line 36.)

Bond admits of having not changed or modified the natural characteristics of the bacteria in any way. (R. 125.) He admits the base or carrier such as humus is not part of his invention and his method of putting the bacteria in the carrier is old. (R. 119.) In its essence Bond claims he discovered that certain strains of Rhizobium bacteria would not be affected by others in respect to their ability to fix nitrogen when placed together. The issue here is whether this discovery of a law of nature is patentable, without more.

Decision of the District Court

Respondent sued Petitioner for infringement of United States Letters Patent to Bond, No. 2,200,532, issued May 14, 1940. Respondent limited its charge of infringement to the product claims of the patent.

Petitioner, Defendant in the District Court, filed a Counterclaim asking for a Declaratory Judgment on the entire Bond patent for it contains claims directed to a product and claims directed to a method of making the product.

The District Court held invalid the product claims on the ground they did not involve "any new and useful art, machine, manufacture or composition of matter" (R. 744) under the patent statute, R. S. 4886, because they constituted an attempt to patent a law of nature.

The District Court dismissed the Petitioner's Counterclaim to have the method claims also declared invalid, these other claims being deemed not at issue.[1] (R. 744.)

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[1] Product claim 2 and method claims 9, 10, 11 and 12.

Decision of the Circuit Court of Appeals for the Seventh Circuit.

The Respondent appealed the decision of the District Court to the Circuit Court of Appeals for the Seventh Circuit (R. 755) and the Petitioner cross-appealed so much of the decision of the District Court as related to the dismissal of the Counterclaim and the holding of infringement by the product of the Petitioner. (R. 759.)

The Circuit Court of Appeals for the Seventh Circuit reversed the finding of the District Court concerning the validity of the claims in suit, holding them valid, sustained the District Court's holding of infringement of the claims in suit and reversed the District Court's dismissal of the Petitioner's counter-claim concerning the Declaratory Judgment on the remaining claims of the patent. (R. 834.)

This petition seeks a review of the decree reversing the District Court on its holding of invalidity of the product claims in suit. A decision in this Court on the fundamental question of patenting of a law of nature will dispose of the trial of the method claims as they hinge on the same question. Substantially the entire industry and the Petitioner are in or subject to the Seventh Circuit.

REASONS FOR THE ALLOWANCE OF THE WRIT.

Petitioner believes that writ of certiorari should be granted in this case for the following reasons, and accordingly the discretionary power of this Court is invoked.

I.

No Patent Can Be Sustained for Monopoly of a Law of Nature of a Product or Composition of Matter. To Hold Otherwise Is in Conflict with the Decisions of this Court.

The Circuit Court of Appeals for the Seventh Circuit in holding the Bond patent 2,200,532 valid, has rendered a decision in conflict with the principles of the decisions of

this Court such as in *LeRoy et al. v. Tatham et al.*, 55 U. S. 156, 14 How. 156, 14 L. Ed. 367; *O'Reilly v. Morse*, 15 How. 62, 120; *Rubber-Tip Pencil Co. v. Howard*, 20 Wall. 498, 22 L. Ed. 410; *Burr v. Duryee*, 1 Wall. 531, 17 L. Ed. 650; *The Telephone Cases*, 126 U. S. 1; *Corona Co. v. Dovan Corp.*, 276 U. S. 358; *American Fruit Growers, Inc. v. Brogdex Co.*, 283 U. S. 1; *Mackay Radio & Telegraph Co. v. Radio Corp. of America*, 306 U. S. 86, 94; *DeForest Radio Co. v. General Electric Co.*, 283 U. S. 664, which are to the effect that laws of nature and products of nature cannot be patented.

It is only when such laws of nature are utilized in new mechanisms or methods so that a contribution is made to the public by the inventor beyond a mere use of the laws of nature, that a patent can be lawfully granted.

The failure to follow established rules of this Court is reason for granting certiorari. *Cities Service v. Dunlap*, 308 U. S. 208.

II.

An Old Product or Products of Nature in Combination Cannot be Patented by a Mere Discovery of a New Quality Existent in Nature From Time Immemorial: Under Sec. R. S. 4886 to be Patentable, the Combination Must Be New and Useful and Based Upon a Contribution to the Public Not Existing in Nature. To Hold Otherwise Is in Conflict with Other Circuit Courts of Appeals.

The essence of the decision of the Circuit Court of Appeals for the Seventh Circuit was that "the discovery of a natural phenomenon, or of a quality or attribute of a well-known article and application of that quality in a successful combination which is of value to mankind, is entitled to patent protection." (R. 824.) It is therefore held that: "the sum total of all prior teaching is that mixed inoculants had been in existence before but they had been composed by hit-and-run methods without regard to whether

the various species included in the composite worked adversely to one another or inhibited one another in their respective growths. Some of them may have been successful because, by mere chance, only non-inhibitive species were included." (R. 824.) But Bond's alleged invention was simply in utilizing conventional tests to select only those that were not mutually inhibitive.[1]

In this position, we believe the Court is in grave error as it expands the monopoly of the patent laws to monopolize all fundamental research which should be preserved for the common stock of knowledge of all mankind so as to furnish the basis for proper monopoly of specific applications by mechanisms or methods of invention under the patent law. This decision is in conflict with the usual rule as stated in *Morton v. New York Eye Infirmary* (C. C. N. Y. 1863) Fed. Cas. 9865, 17 Fed. Cas. 881; *Universal Winding Co. v. Foster Mach. Co.* (CCA 1) 90 F. (2d) 472; *Hamilton Laboratories, Inc. v. Massengill* (CCA 6) 111 F. (2d) 584; *Flint v. G. R. Leonard & Co.* (CCA 7) 27 F. (2d) 215, citing *Corning v. Burden*, 15 How. 252, 14 L. Ed. 683; *Guthrie v. Curlett* (CCA 2) 10 F. (2d) 725; *A. & E. Pitman*

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[1] The following are quotations taken from the opinion of the Seventh Circuit Court of Appeals in this case:

"* * * what he discovered was that certain existing bacteria do not possess the mutually inhibitive characteristics which had previously prevented a successful commercial composite inoculant and that those uninhibitive species may be successfully combined. It was this contribution of non-inhibitive strains which successfully combine that brought about a new patentable composition. This was application of scientific knowledge to things existing in nature and the utilization of them in a desirable composite product which had not been previously achieved but which he did achieve and of which the public now has the benefit." (R. 823, 824.)

"As this court said, in *Dennis et al., v. Pitner et al., supra*, 'the discovery of a natural phenomenon, or of a quality or attribute of a well-known article and application of that quality in a successful combination which is of value to mankind, is entitled to patent protection.' We adhere to that pronouncement and we think Bond achieved that end." (R. 824.)

Mfg. Co. Inc. v. Pitman (CCA 1) 50 F. (2d) 744; *Barber-Coleman Co. v. A. G. Redmond Co.* (CCA 6) 94 F. (2d) 717; *City of Milwaukee v. Activated Sludge* (CCA 7) 69 F. (2d) 577; *Buckingham Products Co. v. McAleer Mfg. Co.* (CCA 6), 108 F. (2d) 192; *Novocol Chemical Mfg. Co. v. Powers & Anderson Dental Co.* (CCA 4) 128 F. (2d) 904; *Katz v. Horni Signal Mfg. Co.* (CCA 2) 145 F. (2d) 961, which are to the effect that the discovery of a natural phenomenon or of a quality or attribute of a well-known article and an application of that quality which is of value to mankind, without further contribution, is not patentable.

III.

Diversity of Opinion Below: No Other Opportunity to Present This Case to This Court. The District Court and Court of Appeals Are in Conflict in This Case on the Issue of Patentability of a Law of Nature. No Opportunity for Further Conflict in Other Circuits Will Present Itself for the Following Reasons:

The far-reaching public effect of the judgment of the Court of Appeals upon manufacturers of inoculants for leguminous plants, the doubtful validity of the patent in suit, and the improbability that any litigation will occur in another circuit whereby a conflict of decisions of different Courts of Appeals may arise, affects the entire agricultural industry and the public, in view of the concentration of the inoculant industry in the Seventh Circuit. This calls for the issuance of the writ according to the precedent established by this Court in *Schriber-Schroth v. Cleveland Trust Company*, 305 U. S. 47, 50, cer. gr. 304 U. S. 587, *Muncie Gear Co. v. Outboard Motor Company*, 315 U. S. 759, 766; *Exhibit Supply Company v. Ace Corporation*, 315 U. S. 126, 128, *Williams v. United Shoe*, 316 U. S. 364.

All of the major manufacturers of the inoculant industry are concentrated in the Seventh Circuit, with the exception of Agricultural Laboratories, Inc., located in the

Sixth Circuit but which is bound by any decision in this case through its admission, at the time of trial, of the defense of the instant case. By virtue of the judgment of which review is sought, Respondents have established the validity of the patent in suit in a circuit where substantially more than 90% of the inoculant industry is resident (supporting data cited *infra*, pages 31-33), unless by the granting of the writ here sought, this Court shall rule otherwise. Moreover, the owner of the patent resides in the Seventh Circuit, thus necessitating the bringing of any action for a Declaratory Judgment in that Circuit.

IV.

Can the Discoveries of the Law of Nature of Natural Products or Composition of Matter, Without Further Contribution by the Discoverer, be the Subject of Patent Monopoly Under the Statutes R. S. 4886 or Do They Belong to the Public?

The revolutionary decision of the Circuit Court of Appeals for the Seventh Circuit that a discovery of a natural phenomenon, or of a quality or attribute of a well-known article which is of value to mankind, is a patentable composition, raises a fundamental question of law applied to patents,—is a discovery of natural phenomena, or of a natural attribute of a product of nature, patentable under R. S. 4886 when the discoverer does nothing but use the natural phenomena or attribute in its natural form, without change, in the same old combination for the same purpose it performs in its natural habitat and in an old manner? We think not. *Hotchkiss v. Greenwood*, 11 How. 248; *Cuno Engineering Corp. v. Automatic Devices Corp.*, 314 U. S. 84; *Mackay Radio & Telegraph Co. v. Radio Corporation of America*, 306 U. S. 86; *Hartranft v. Wiegmann*, 121 U. S. 609.

V.

Public Importance.[1]

In view of the vast increase in fundamental research and the impetus in the use of biological inoculants necessary in the field of agricultural production upon which the life of this nation and other nations depends, the correctness and soundness of this decision and the assertion of patent rights under it are factors of great moment to the public, *Precision Instrument Mfg. Co. v. Automotive Mach. Co.*, 324 U. S. 806, and to the future course of the patent system. The decision of the Seventh Circuit in this case, unless reversed by this Court, will involve judicial controversy for years to come whether natural phenomena, or natural attributes or natural qualities or natural products, can be made subject to monopoly upon their mere discovery or use, regardless of the fact that the patent statute R. S. 4886, 35 U. S. C. A. Sec. 31, does not provide for patent protection on mere discoveries.

VI.

A Product Claim that Relies for its Novelty Upon a Statement of Function Is Invalid.

The foregoing rule was recently re-stated in *Halliburton Oil Well Cementing Co. v. Walker*, 329 U. S. 1, 9. This Court said:

> "The language of the claim thus describes this most crucial element in the 'new' combination in terms of what it will do rather than in terms of its own physical characteristics or its arrangement in the new combination apparatus. We have held that a claim with such a description of a product is invalid as a violation of Rev. Stat. 4888. *Holland Furniture Co. v. Per-*

[1] Many other industries than agriculture are affected by this decision as to bacteria and their natural functions, such as brewing industry, bread and yeast; solvents; medicinals and pharmaceuticals in the field of penicillin, streptomycin; lacquers and resins; sewage disposal and foods.

Kins-Glue Co., 277 U. S. 245, 256-57; *General Electric Co. v. Wabash Appliance Corp., supra*."

In this case the product claims in suit all depend upon functional statements of the action of the bacteria to not affect one another. They, are therefore, invalid under the familiar rule established by this Court. (R. S. 4888.)[1]

Prayer.

WHEREFORE, Your Petitioner respectfully prays that writ of certiorari be issued to the Circuit Court of Appeals for the Seventh Circuit to the end that this cause may be reviewed and determined by this Court in accordance with the principles of law heretofore announced by it; that the decree of the Circuit Court of Appeals for the Seventh Circuit be reversed as to the finding of validity of Bond patent 2,200,532, dated May 14, 1940; and that the Peti-

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[1] R. S. 4888, 35 U. S. C. A. Sec. 33.

"Before any inventor or discoverer shall receive a patent for his invention or discovery he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding, and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery. The specification and claim shall be signed by the inventor. No plant patent shall be declared invalid on the ground of noncompliance with this section if the description is made as complete as is reasonably possible. R. S. 4888; March 3, 1915, c. 94, § 1, 38 Stat. 958; May 23, 1930, c. 312, § 2, 46 Stat. 376."

tioner be granted such other and further relief as may be deemed proper.

FUNK BROTHERS SEED COMPANY,
By H. A. TOULMIN, JR.,
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Respondent.

BRIEF IN SUPPORT OF PETITION FOR WRIT OF CERTIORARI.

The Opinions of the Courts Below:

The memorandum of Holdings of the District Court is found on pages 744 and 745, Vol. 2 of the Record. The Findings of Fact and Conclusions of Law are found on pages 745 to 753, and the Judgment is found on page 754, Vol. 2 of the Record. The opinion of the Circuit Court of Appeals (Circuit Judges Evans and Major, and Lindley, District Judge, Judge Lindley writing the opinion) appears at pages 817 to 833, Vol. II of the Record. The opinion of the Circuit Court of Appeals is reported at 74 U. S. P. Q. 1.

Jurisdiction.

Petitioner would invoke the jurisdiction of this Court under Section 240(a) of the Judicial Code as amended by the Act of February 13, 1925, U. S. C. A. Tit. 28, Sec. 347, to review a judgment of the United States Circuit Court of Appeals for the Seventh Circuit dated June 12, 1947 (R. 834) in a suit for infringement and validity of the Bond patent 2,200,532 dated May 14, 1940.

The cases believed to sustain jurisdiction are:

LeRoy et al. v. Tatham et al., 55 U. S. 156;
Deforest Radio Co. v. G. E. Co., 283 U. S. 664;
O'Reilly v. Morse, 15 How. 62;
The Telephone Cases, 126 U. S. 1;
American Fruit Growers v. Brogdex, 283 U. S. 1;
Schriber-Schroth v. Cleveland Trust, 305 U. S. 47; 304 U. S. 587;
Exhibit Supply Co. v. Ace Corp., 315 U. S. 126;
Muncie Gear Co. v. Outboard Motor Co., 315 U. S. 759;
Williams Mfg. Co. v. United Shoe Mfg. Corp., 316 U. S. 364;
Precision Instrument Mfg. Co. v. Automotive Mch. Co., 324 U. S. 806;
Lincoln Engineering v. Stewart-Warner, 303 U. S. 545.

Statement of the Case in Petition.

The foregoing Petition contains a summary of the material facts necessary to an understanding of the reasons relied upon for the allowance of the writ as well as a statement of the questions involved in the case.

Specification of Errors.

The specification of errors herein relied upon are those reasons incorporated generally in the reasons set forth in the Petition as grounds for its allowance.

ARGUMENT.

I.

No Patent Can Be Sustained for Monopoly of a Law of Nature of a Product or Composition of Matter. To Hold Otherwise Is in Conflict with the Decision of This Court.

The product of the Bond Patent[1] is an inoculant containing two or more different species of bacteria for inoculating two or more kinds of leguminous plants in which it is claimed the two or more species of bacteria do not affect one another in their ability to fix nitrogen.

For many years, by some unexplained natural phenomena, these bacteria have infected the roots of plants, and have caused nodules to form on the roots, by reason of which, the plants draw more nitrogen out of the air into the plant than would normally be gathered by the plant without the bacterial inoculation.

In nature there are hundreds of strains of the different species of bacteria that daily perform this function of fixing nitrogen in the various leguminous plants: This has occurred from time immemorial. Man has no control over this process, even today; the bacteria acting according to their own law of nature. The patentee Bond does not claim that he has any control over these bacteria to regulate or change their natural functioning when he puts the two strains of bacteria in the old compost.

Of these hundreds of different strains of bacteria that can be found in nature, working according to their own law of nature, there are some strains which are weak in their ability to fix nitrogen and others which are strong in their

[1] Claim 4—is representative of the Bond Claims:

"An inoculant for leguminous plants comprising a plurality of selected mutually non-inhibitive strains of different species of bacteria of the genus Rhizobium, said strains being unaffected by each other in respect to their ability to fix nitrogen in the leguminous plant for which they are specific."

ability to produce this function. They work according to their own law of nature and the patentee Bond does not make any claim that he changes the natural functioning of the bacteria by anything that he has discovered.

The many species of bacteria existing in nature in all parts of the world are not uniformly distributed over the land area, so that all of the bacteria may at all times be found in all land areas. Bacteriologists, many years ago, discovered that they could isolate these bacteria from nature and propagate them to increase their numbers and then place them in a suitable base or carrier medium* for distribution to the farmers to apply on their seed. Thus, a farmer whose soil did not have bacteria beneficial to the leguminous plants of a particular kind in his own land could purchase the cultivated bacteria, place them upon the seed, and thus carry the bacteria into the ground.

Bacteriologists have for many years produced inoculants in which either a single strain or a plurality of strains of bacteria were placed, that were beneficial to the leguminous plants. They have always endeavored to isolate different strains of bacteria from nature that would have the strongest possible natural characteristic for fixing nitrogen in the leguminous plants. This was a common procedure long before the advent of the Bond patent (PX-13, R-401), and is admitted by Bond. (R-120.)

Bacteriologists continually isolate bacteria from nature and test them according to conventional, well-known tests to determine the efficiency of the particular strain of bacteria to obtain more and more efficient strains for use in inoculants to give the farmer better and better results. (R-120.)

This process of selection of highly efficient strains of bacteria has been going on for many years so that all of the companies producing inoculants have stock strains of

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* medium—known as a compost.

the various bacteria that are highly efficient in their natural function of fixing nitrogen.

In the foregoing respect, the patentee Bond does not claim that he does anything different from that which has been done in the past with reference to the isolation selection and use of highly efficient strains of bacteria. (R-116.)[1]

The patentee Bond does not claim to be the inventor of composite or mixed inoculants. Mixed inoculants were known, sold and used long before his patent.[2]

He does not claim that he has anything new in the base or carrier, in his case humus, into which he places the bacteria. (R-119.)

He does not claim that he has any different method of propagating the bacteria to increase their numbers by which he effects any change in the natural characteristics of the bacteria. (R-116.)

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[1] Testimony of Bond

"Q. And this method of the separate cultivation of these strains that is set forth in your patent, as I understood you to say, that method was one that was well-known in the art at the time of your application for your patent, in 1938?

A. Yes, essentially. There are some slight variations that are described in the specifications that I don't recall seeing before.

Q. Those variations would not, in any way, affect the character of the bacteria?

A. No; that is correct.

Q. When you get through with your culture you have the same bacteria you got from nature, but you have more of it, is that correct?

A. That is true; that is correct.

Q. And that was well-known in the art among those skilled in the art, prior to the date of your application for your patent, or your claimed invention?

A. Yes, sir."

[2] Mixed inoculants were known in prior patents and publications DX-16, R-508; DX-17, R-564; DX-22, R-636; Patents to Earp-Thomas 865,965, R-780; 1,099,121, R-786; Manns, 1,320,701, R-804, and in commercial products DX-1, R-440; DX-4, R-442; DX-10, R-476; DX-11, R-478.

Bond does not claim that he places the bacteria into the humus base or carrier in any way different from the way in which the bacteria have been placed in the humus for many years before his patent. (R-119.)

He does not claim to have discovered any new bacteria that have different natural characteristics from the bacteria known in the art prior to his patent, nor does he claim to have discovered any species of bacteria that is more efficient than any bacteria known in the prior art, as found by the Circuit Court. (R. 819.)

We ask the question, then—what has Bond done that was not done or known before his patent?

It can be simply stated as this,—Bond claims to have discovered that of all of the bacteria that exist in nature of the genus Rhizobium, for use with leguminous plants, some of these bacteria will be affected by others when they are placed in association with one another while others will not be so affected:—an alleged discovery of the natural characteristics of bacteria when they are placed in association with one another.[1]

The issue here is—is such a discovery patentable when the patentee does nothing to change the natural characteristics of the bacteria, adds nothing to nor takes anything away from the bacteria, but merely uses the bacteria as selected by their own law of nature for use in an old and

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[1] The following quotation is taken from the decision of the Circuit Court:

"• • • what he discovered was that certain existing bacteria do not possess the mutually inhibitive characteristics which had previously prevented a successful commercial composite inoculant and that those uninhibitive species may be successfully combined. It was this contribution of noninhibitive strains which successfully combine that brought about a new patentable composition. This was application of scientific knowledge to things existing in nature and the utilization of them in a desirable composite product which had not been previously achieved but which he did achieve and of which the public now has the benefit." (R. 823, 824.)

well-known product to produce the same and well-known function.

Assuming, for the purpose of argument, that the patentee Bond did discover a previously unknown attribute of the bacteria for leguminous plants when they function according to their own law of nature, and assuming that the Circuit Court of Appeals for the Seventh Circuit correctly found "that what he discovered was that certain existing bacteria do not possess the mutually inhibitive characteristics," the question still is—is such a discovery patentable when the patentee does nothing more than use the result of the discovery in selecting the old combination of bacteria so that they do not fight one another?

To allow such a discovery to now become the subject of a patent monopoly, as held by the Circuit Court of Appeals,[1] is in direct conflict with the holding of this Court in *LeRoy et al. v. Tatham et al.*, 14 How. 156, 112:

> "A principle, in the abstract, is a fundamental truth; an original cause; a motive; these cannot be patented, as no one can claim in either of them an exclusive right • • • in all such cases, the processes used to extract, modify, and concentrate natural agencies, constitute the invention. The elements of the power exist; the **invention is not in discovering them, but in applying them to useful objects.**" (Emphasis ours.)

This Court in this same case, in further amplification of that principle, stated:

> "It is said, in the case of *The Household Company v. Neilson*, Webster's Patent Cases, 683: 'a patent will be good; though the subject of the patent consists in the discovery of a great, general and most comprehensive principle in science or law of nature, if that principle is by the specification applied to any special

[1] Quotation from decision of Circuit Court below:

"As this Court said, in *Dennis, et al., v. Pitner, et al., supra*, the discovery of a natural phenomenon, or of a quality or attribute of a well known article and application of that quality in a successful combination which is of value to mankind, is entitled to patent protection."

purpose, so as thereby to effectuate a practical result and benefit **not previously attained.**' " (p. 113.) (Emphasis ours.)

The essence of the reason for allowing a patent which incorporates a principle in science or a law of nature is that a practical result and benefit **not previously attained,** shall be obtained by a contribution by the inventor beyond the mere use of the law of nature.

Bond does not claim that he produces any different result than was produced by the prior mixed inoculants, he does not claim the result is produced in any different way nor that the result of inoculating leguminous plants satisfactorily was not obtained before his alleged invention. The most that Bond can claim is that his alleged invention permits the same result to be obtained that was obtained before his invention but with some degree of betterment. This does not rise to the dignity of invention. *Cuno Engineering Corp. v. Automatic Devices Corp.*, 314 U. S. 84, 91.

In *Smith v. Nichols*, 21 Wall. 112, 119, this Court said that "A mere carrying forward or new or more extended application of the original thought, a change only in form, proportions, or degree, the substitution of equivalents, doing substantially the same thing in the same way by substantially the same means with better results, **is not such invention as will sustain a patent.**" (Emphasis ours.)

In *O'Reilly v. Morse*, 15 How. 62, 120, this Court held that the broad claim 8 of Morse directed to the use of the motive power of electric current for making or printing intelligible characters at any distance, was **void because it was a claim "for an effect produced by the use of electromagnetism distinct from the process or machinery necessary to produce it."**

The patentee Bond here claims an effect that is distinct from the product itself, namely, that the bacteria when placed together in the composite culture shall not inhibit one another. Bond's inoculant does not incor-

porate the law of the natural functioning of the bacteria, or law of nature, but is merely an exemplification of the effect of the working of that law.

Similarly, a dog which belongs to a known species but which is bred according to a new biological law, does not embody that law. The dog is merely an exemplification of the law. But, looking at the dog, as a dog, we are not informed of the existence of any new biological law through the mere inspection of the dog.

So in this case, the Bond product will not, upon inspection, inform anyone of the existence of the law of nature by which the bacteria function. The product is a mere exemplification or use of the law of nature. It is not a new composition of matter produced by or incorporating the operation of the law of nature in that product.

Only if the object by itself in its proper operation reasonably informs a person possessing technical skill of the existence of a fact or truth previously discovered, shall that object be considered as embodying the discovery. A mere use of any composite inoculant, even though produced in exact accordance with the Bond patent, will not inform any skilled technician of the existence of the discovery of the natural functioning of the bacteria by which they are alleged to not inhibit one another. Bond himself admits in his patent that there is no way of determining the non-inhibitive characteristics of the bacteria except by testing it according to an old and well-known test procedure.[1]

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[1] Quotation from Bond Patent 2,200,532—page 5. (R-776-777.)

"No method has been observed whereby the alpha strains of the organisms may be differentiated from the mutually inhibitive group of Rhizobia other than by making actual nitrogen fixation tests by inoculating the various host plants with the proposed mixture of the Rhizobia." • • • "The method for carrying out tests for determining the amount of nitrogen fixed by leguminous plants in association with the various species of the Rhizobia are well known in the art and are given in detail by Fred and Waksman, *supra*, and Fred, Baldwin ar . McCoy, *supra*."

This Court has held that no inventor may compel independent experimentation by others to ascertain the bounds of his claims. *Standard Brands, Inc. v. National Grain Yeast Corporation*, 308 U. S. 34.

The holding of the Circuit Court is in direct conflict with the holding of this Court in *DeForest Radio Co. vs. General Electric Co.*, 283 U. S. 664 wherein this Court stated:

> "It is method and device which may be patented and not a scientific explanation of their operation. See *LeRoy v. Tatham*, 14 How. 156, 174-6."

In the *Telephone Cases*, 126 U. S. 1, 532, this Court stated:

> "In this art—or, what is the same thing under the patent law, this process, this way of transmitting speech—electricity, one of the forces of nature, is employed; but electricity, left to itself, will not do what is wanted. **The art consists in so controlling the force as to make it accomplish the purpose.**" (Emphasis ours.)

In *Burr v. Duryee*, 1 Wall. 531, 570, this Court stated:

> "We find here no authority to grant a patent for a 'principle' or a 'mode of operation' or an idea or any other abstraction."

The holding of the Circuit Court of Appeals[1] is not in harmony with the holdings of this Court for the decision of the Circuit Court of Appeals does not require a patentee to do anything but discover a natural phenomenon, a quality or an attribute of a well-known article which is of value to mankind to make it patentable.

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[1] See footnote No. 1, on page 21.

II.

An Old Product or Products of Nature in Combination Cannot be Patented by a Mere Discovery of a New Quality Existent in Nature from Time Immemorial: Under Sec. R. S. 4886 to be Patentable, the Combination Must be New and Useful and Based Upon a Contribution to the Public Not Existing in Nature. To Hold Otherwise is in Conflict with Other Circuit Courts of Appeals.

The decision of the Circuit Court of Appeals for the Seventh Circuit is in conflict not only with the decisions of this Court but it is also in conflict with the principles of the decisions of other Courts of Appeals of other circuits.

The outstanding example of the conflict that currently exists is the conflict with the decision rendered in *Vitamin Technologists, Inc. v. Wisconsin Alumni Research Foundation* (CCA 9) 146 F. (2d) 941.

In this case action was brought by Wisconsin Alumni Research Foundation against Vitamin Technologists, Inc., for infringement of three Steenbock patents relating to a process of producing vitamin "D" by activating ergosterol and yeast with ultra-violet rays produced by a mercury vapor lamp. The Court stated in its decision:

> "We refuse to entertain the absurd proposition that because the farmer and copra grower did not know the photo chemical process involved in their immemorial practice, they may be enjoined as infringers."
>
> "Assuming that Dr. Steenbock discovered, as he claims, that the sun's rays coming from millions of miles away could irradiate foods with vitamin D and that this was the reason, unknown to them, why farmers and coconut growers regarded their sun-cured hays and sun-dried copra were good foods, such a discovery does not entitle him to a patent on their processes." (p. 948.)

Further, in a concurring opinion, Judge Healy stated:

> "I assume, therefore, that Steenbock discovered and sufficiently disclosed in his claims the most effective time period of exposure. Nevertheless such a

discovery would not amount to a patentable invention. It would amount to no more than the ascertainment of a naked fact or principle in nature existing independently of the efforts of the discoverer. Cf. *O'Reilly v. Morse*, 15 How. 62, 14 L. Ed. 601; *Tilghman v. Proctor*, 102 U. S. 707, 722-729, 26 L. Ed. 279." (p. 954.)

The decision of the Circuit Court of Appeals for the Seventh Circuit in the case here is stated to be in accord with the decision of the Court of Appeals for the Seventh Circuit in *Dennis et al. v. Pitner et al.*, 106 F. (2d) 142, the Court in effect quoting from its decision in *Dennis et al. v. Pitner et al.*,[1] and adhering to that pronouncement[2] when holding the Bond patent valid.

The Hon. Evans A. Evans, Judge, Circuit Court of Appeals for the Seventh Circuit, wrote the decision in

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[1] Decision of CCA-7 in *Dennis, et al., v. Pitner, et al.*

"We must reject defendants' first defense, namely, that the cube roots utilized as an insecticide may not involve patentable invention under any circumstances, because such discovery is merely a revelation of an existing law of nature. We believe the importance of this conclusion justifies a somewhat extended discussion.

"(1) We believe it to be a sound pronouncement to say:—The discovery of a natural phenomenon, or of a quality or attribute of a well-known article, which discovery is of value to mankind, may be entitled to patent protection. The objection frequently offered to the patentability of such a discovery is that it is a law of nature or a principle of nature and for that reason not patentable. Section 31, Title 35, U.S.C.A., authorizes the issuance of a patent to 'Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof * * * not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof * * *.'"

[2] Quotation from Decision of CCA-7 in this case:

"As this Court said, in *Dennis, et al., v. Pitner, et al., supra*, the discovery of a natural phenomenon, or of a quality or attribute of a well known article and application of that quality in a successful combination which is of value to mankind, is entitled to patent protection. We adhere to that pronouncement and we think Bond achieved that end."

the case of *Dennis v. Pitner*, 106 F. (2d) 142 at which time the pronouncement of the Court that a discovery of the quality or attribute of a well-known article and application of that quality in a successful combination which is of value to mankind, is entitled to patent protection, was first made.

However, the patents involved were held invalid on the ground of prior use. Thus this decision did not present an opportunity for it to be brought to the attention of this Court.

The public importance of the question that is at issue here and the conflict of this question with the decisions of this Court and all other Circuit Courts of Appeals was recognized by Judge Evans in a speech delivered to the Pittsburgh Patent Law Association, December 13, 1944,[1] at which time Judge Evans announced that in the case of *Dennis et al. v. Pitner et al.*, 106 F. (2d) 142, the Court reached a conclusion opposed to that announced in the *Vitamin* case.[2] With the Court of Appeals now holding that the present case is in harmony with *Dennis v. Pitner*,

[1] Published in the Journal of the Patent Office Society, May, 1945, Vol. 27, No. 5.

[2] The following quotation is taken from Judge Evans' speech:

"*Laws of Nature.* I now turn to the second matter wherein the patent law might be improved. A decision has recently been announced and quite as suddenly withdrawn,—*Vitamin Technologists v. Wisconsin Foundation*, which brings the question to a prominence that tolerates no avoidance. I refer to the ruling, quite old in text and in the speech of thoughtless patent lawyers, but only when hard put in their efforts to defeat a notable discovery, which denied patents to patentable discoveries because, so it is said, the discovery was merely a new application of an old law of nature. In the case of *Dennis v. Pitner*, 106 F. (2d) 142, the court of which I am a member, reached the conclusion opposite to that announced in the *Vitamin* case. In our case the majority opinion tried to lay down the rule which would grant protection to that vast number of researchers who work in the field of science, particularly chemistry, and are constantly contributing to the benefit of man by discoveries which have been outstanding, and yet under the rule announced in the Ninth Circuit, would be condemned as unpatentable because they are but the adaptation of a law of nature."

it is clear that this case is in conflict with *Vitamin Technologists, Inc. v. Wisconsin Alumni Research Foundation.*

The Court of Appeals for the Seventh Circuit and of the Ninth Circuit are, therefore, in direct conflict on the question of the patentability of a discovery of a law of nature.

We believe the decision in the *Vitamin Technologists* case to be sound and in accord with the decisions of this Court and with our patent statutes as enacted by Congress by which patent protection has been refused merely for discoveries of the laws of nature or of physical phenomena or of particular attributes or qualities of well-known devices. (R. S. 4886.) What Congress has not done by legislation, the Circuit Court of Appeals for the Seventh Circuit now attempts to do by adjudication. Even the Honorable Judge Evans recognized the fact that Congress has not legislated authority to the Patent Office to grant patents to those who make outstanding discoveries of immeasurable value to society but which, for the statute, would be patentable.*

One can well imagine the confusion that will exist in our judicial system for years to come if this Court does not now render its decision on the correctness either of the *Vitamin Technologists, Inc. v. Wisconsin Alumni Research Foundation* case, or of *Dennis et al. v. Pitner et al.*, and this case.

If the position of the Circuit Court of Appeals for the Seventh Circuit is allowed to stand, the patent laws will be expanded through judicial pronouncement to monopolize all fundamental research which should be preserved for

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* The following quotation is from Judge Evans' speech before the Pittsburgh Patent Law Association, December 13, 1944.

"Congress should be asked to meet these holdings by authorizing the grant of a patent to two or more who make an outstanding discovery of immeasurable value to society—under circumstances which, but for the said rule, would be patentable. Second, the discovery of a new use of an old principle, or law of nature, should be entitled to patent protection as fully as if it were a new combination of old elements."

the common stock of knowledge of all mankind and it will not be restricted to proper monopoly of specific applications by mechanisms or methods as required under the patent statute R. S. 4886.

Further, the decision of the Circuit Court of Appeals for the Seventh Circuit is in conflict with the case of *Morton v. New York Eye Infirmary* (C. C. N. Y. 1863), CCA 2, Fed. Case 9865, 17 Fed. Cas. 881. In this case Morton had discovered the anaesthetic effect of ether when applied to the human body. The Court very ably stated:

> "In its naked ordinary sense, a discovery is not patentable. A discovery of a new principle, force, or law operating, or which can be made to operate, on matter, will not entitle the discoverer to a patent. It is only where the explorer has gone beyond the mere domain of discovery, and has laid hold of the new principle, force, or law, and connected it with some particular medium or mechanical contrivance by which, or through which, it acts on the material world, that he can secure the exclusive control of it under the patent laws. He then controls his discovery through the means by which he has brought it into practical action, or their equivalent, and only through them. It is then an invention, although it embraces a discovery."

Imagine the effect on human welfare and the restriction that would have been placed on the advancement of medical science if the discovery of the anaesthetic effect of ether when applied to the human body, would have been declared the subject of a valid patent. We submit the same far-reaching effect is now at stake in this case for in the last few years it is the common practice for farmers to seed their fields with a mixed seeding of clover and alfalfa.

If this alleged discovery of Bond is allowed to remain as a valid patent, it will stop all further progress in the bacteriological art as applied to the Rhizobium bacteria for use in agriculture. No manufacturer could put himself in the position of placing two or more species of bacteria together in a common carrier to inoculate any mixed seed-

ing of any kind for fear of infringing the Bond patent. This, regardless of the fact that the species of bacteria the manufacturer placed together had been known to him and used by him with highly successful results for many years before the advent of the Bond patent, and regardless of the method by which he put these bacteria together.

Bond endeavors to monopolize an entire industry by a mere discovery of the law of the nature of the functioning of bacteria over which he has no control.

The decision of the Circuit Court is in conflict with *Novocol Chemical Manufacturing Co. v. Powers & Anderson Dental Company* (CCA 4), 128 F. (2d) 904, 907:

> "There was no invention in conducting routine tests to prove or disprove the existence of a physical fact. Patents may be issued for arts, machines, manufactures and compositions of matter, 35 U. S. C. A. § 31. But the laws of nature and their workings are not the subject of invention by man. He may discover them and bring them to the knowledge of the world but he cannot patent that discovery; he can obtain a patent only when he has invented an art or a machine whereby to utilize his discovery. *O'Reilly v. Morse* (involving invention of the telegraph) 15 How. 62, 112, 14 L. Ed. 601; *Walker on Patents*, 6th Ed., Sect. 18."

and is further in conflict with decisions of the First, Third and Sixth Circuits in cases cited in the Petition. (See pages 8-9.)

III.

Diversity of Opinion Below: No Other Opportunity to Present This Case to this Court. The District Court and Court of Appeals Are in Conflict in this Case on the Issue of Patentability of a Law of Nature. No Opportunity for Further Conflict in Other Circuits Will Present Itself for the Following Reasons:

The far-reaching public effect of the judgment of the Circuit Court of Appeals for the Seventh Circuit upon manufacturers of inoculants for leguminous plants can readily be appreciated in view of the concentration of all of the major manufacturers of inoculants in the Seventh Circuit.

This is shown by the publication of the United States Department of Agriculture, Circular 724, dated May, 1945, which is its latest circulated report on its annual tests of the products of all manufacturers producing inoculants. The present report covers the period July 1, 1943 to June 30, 1944, during which a total of 668 samples bearing 38 different trade names were collected in 33 States. These samples are the products of 10 manufacturers, a list of whom, together with the trade names used, is given below.[1]

Agricultural Laboratories, Inc., is the only major manufacturer located outside the Seventh Circuit However, this company is bound by the decision in this case since it is the manufacturer of the alleged infringing prod-

[1]

Mfrs. in Seventh Circuit	*Mfrs. beyond Seventh Circuit*
HANSEN INOCULATOR CO.	NELSON LABORATORIES,
Urbana, Ill.	Stockton, Calif.
Products Mfr'd.	*Products Mfr'd.*
Hansen's Humus Inoculator	Cal-Rhiz.
Co-op Humus Inoculator	EARP-THOMAS LABORATORIES, Inc.
Eastern States Legume Inoculant	Bloomfield, N. J.
Hansen's Inoculator	*Products Mfr'd.*
Kelly's Humus Inoculator	Farmogerm
	Humogerm

(Continued on following page)

uct and admitted full defense of the suit at the trial before the District Court.*

The companies that are beyond the Seventh Circuit, with the exception of Agricultural Laboratories, Inc., are small companies doing a local business. Those companies in the Seventh Circuit together with Agricultural Labora-

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* The defense of the suit by Agricultural Laboratories, Inc., was admitted by Counsel for the Defendant in the opening statement before the District Court as follows:

"The Agricultural Laboratories, Inc., is not a Defendant of record, although we have in Answer to the Interrogatories frankly admitted that we are the manufacturer of the accused product and we have taken over the management and control of this defense and are for all practical purposes the real Defendant in this action."

(*Continued from preceding page*)

THE LEGUMOGEN LABORATORIES, Inc.
Delphi, Ind.
Products Mfr'd.
Legumogen

THE NITRAGIN CO., Inc.
Milwaukee, Wisc.
Products Mfr'd.
Nitragin
(all products of this company are sold under one name)

THE ALBERT DICKINSON CO.
Chicago, Ill.
Products Mfr'd.
Nod-O-Gen Pretested Inoculator
Cofer's Hitest Inoculator
Gold Medal Inoculator
Hoffman's Inoculator
May-Bell Inoculator
M Inoculator
Ohio Farmers Seed Inoculation
Simplex 2 in 1 Inoculator
Trinity Brand Inoculator
Wood's Seed Inoculation

AGRICULTURAL LABORATORIES, Inc.
Columbus, Ohio.
Products Mfr'd.
Legume-Aid
G.L.F. Legume Inoculant
Sacco Legume Inoculant
Unico Legume Inoculant

STRASBURGER & SIEGEL
Baltimore, Md.
Products Mfr'd.
Superyield Culture

(*Continued on following page*)

tories, Inc. do well over 90% of the business in the inoculant industry according to well-informed reports.

If the judgment of the Circuit Court of Appeals for the Seventh Circuit be permitted to stand, and become final, Respondents will have it within their power either to stop or to levy a heavy tribute upon the production of the inoculant industry to the detriment not only of the Petitioners, but of the public at large.

Further, in view of the residence of the owners of the patent in the Seventh Circuit, no test of the validity of the patent could be made by suit under the Declaratory Judgment Act except in the Seventh Circuit.

There is, therefore, no real likelihood that any occasion will arise which would present a conflict of decisions of Courts of Appeals of different Circuits on the same claims of the Bond patent to afford a ground for the exercise of

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(*Continued from preceding page*)

KALO INOCULANT CO.,
Quincy, Ill.
Products Mfr'd.
Uni-Culture No. 2
American Tubercle Germ
Berry's Superior Nodule Germ
Blue Ribbon Inoculation
Blue Seal Grow Crop Inoculant
Corneli Keystone Inoculation
Farm Master Nitrogen-Fixing Inoculant
Kalo Inoculation
Perfection Brand Legume Inoculant
Southern States Quality Inoculation
Uni-Culture No. 3

THE URBANA LABORATORIES,
Urbana, Ill.
Products Mfr'd.
Urbana Culture
Urbana Humus Inoculator

the jurisdiction of this Court. Unless the Petition now presented be granted under the precedent established by this Court in *Schriber-Schroth v. Cleveland Trust Co.*, 305 U. S. 47, 50, cer. gr. 304 U. S. 587; *Exhibit Supply Co. v. Ace Corp.*, 315 U. S. 126; *Muncie Gear Co. v. Outboard Motor Co.*, 315 U. S. 759, an unconscionable domination of a large part of the inoculant industry by a patent of extremely doubtful validity, will stand established.

IV.

Can the Discoveries of the Laws of Nature and of Natural Products, Without Further Contribution by the Discoverer be the Subject of Patent Monopoly Under the Patent Statute R. S. 4886, or Do They Belong to the Public?

The revolutionary decision of the Circuit Court of Appeals for the Seventh Circuit raises a fundamental question of the law of nature as it applies to a proper interpretation of the patent Statute R. S. 4886,[1] when the discoverer does nothing but use the natural phenomenon or attribute in its natural form, without change, for the same purpose it performs in its natural habitat, in an old way.

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[1] R.S. 4886, 35 U.S.C.A. Sect. 31.

"Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, or who has invented or discovered and asexually reproduced any distinct and new variety of plant, other than a tuber-propagated plant not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, or more than one year prior to his application, and not in public use or on sale in this country for more than one year prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceeding had, obtain a patent therefor. R.S. §4886; March 3, 1897, c. 391, §1, 29 Stat. 692; May 23, 1930, c. 312, §1, 46 Stat. 376; Aug. 5, 1939, c. 450, §1, 53 Stat. 1212."

This decision establishes a precedent whereby anyone may take an article or a product that is well known, is being manufactured, sold and used, and may, upon his discovery that this old and well-known article possesses an attribute or a quality that had hitherto been unknown, obtain a patent and thereby create a monopoly on an old product even though it had been made, sold and used for years prior to the discovery of the unknown attribute or quality.

Is the old combining of two natural products continuing to function in the same way which are so selected as to not affect one another, a patentable composition of matter? We think not.

> "Since *Hotchkiss v. Greenwood*, 11 How. 248, 267, decided in 1851, it has been recognized that if an improvement is to obtain the privileged position of a patent more ingenuity must be involved than the work of a mechanic skilled in the art." *Cuno Engineering Corp. v. Automatic Devices Corp.*, 314 U. S. 84, 90.

The decision of the Circuit Court of Appeals does not take into account the fact that the Statute R. S. 4886 requires that an invention or discovery shall be "new" as well as "useful." It makes no difference how useful a device or a product may be, or how revolutionary its character may be, **if it is not new** as well as useful, it fails to meet with the patent Statute. This Court has said in *Cuno Engineering Corp. v. Automatic Devices Corp.*, 314 U. S. 84, 90, "Under the Statute (35 U. S. C. § 31; R. S. 4886) the device must not only be 'new and useful,' it must also be an 'invention' or 'discovery.' *Thompson v. Boisselier*, 114 U. S. 1, 11." The reverse of the situation is also true, i.e., to make a device patentable, it must not only be an invention or a discovery, but must also be "new" and useful. That which has existed as a fundamental law of nature is not "new."

The pronouncement of this Court in *Mackay Radio & Telegraph Co. v. Radio Corporation of America*, 306 U. S.

86, 94, which the Circuit Court of Appeals for the Seventh Circuit says is in accord with its holding, does not support the Circuit Court. This Court said:

> "While a scientific truth, or the mathematical expression of it, is not patentable invention, a **novel** and useful **structure** created with the aid of knowledge of scientific truth may be." (Emphasis ours.)

It will be noted here that this Court stated that to be patentable there must be "novel structure" created by the patentee. The Circuit Court in the vital statement of its decision[1] does not use any language which could be interpreted as meaning "new" or "novel" within the meaning of the statute or within the meaning of the decision of this Court.

The decision of the Circuit Court of Appeals in reversing the decision of the District Court[2] is in conflict with the decision of this Court in *American Fruit Growers, Inc. v. Brogdex*, 283 U. S. 1 and with R. S. 4886, 35 U. S. C. A. Sec. 31. For a patent to issue it must be for an "art, machine, manufacture or composition of matter." Admittedly, the product claims in suit are neither an art or a machine. They

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[1] Quotation from decision of CCA-7:

"* * * the discovery of a natural phenomenon, or of a quality or attribute of a well known article and application of that quality in a successful combination which is of value to mankind, is entitled to patent protection."

[2] Decision of District Court re Bond Patent said:

"With some reluctance I find that the claims in suit of the Bond patent are invalid under our patent statute, because they do not involve the invention or discovery of 'any new and useful art, machine, manufacture, or composition of matter.' I say, 'with reluctance,' because I was impressed at the trial with the very great diligence and ingenuity of Mr. Bond and with the results he obtained. His work is not to be minimized. Notwithstanding the value of his work, however, I feel quite positive that it cannot be classified under any of the subjects covered by the Act and must, therefore, be held nonpatentable. I deem this holding to be in harmony with the weight of authority and not in conflict with the decision in *Dennis v. Pitner*."

are not a manufacture within the terms of the *American Fruit Growers v. Brogdex* case for as this Court stated there:

> "'Manufacture,' as well defined by the Century Dictionary, is 'the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand labor or by machinery.' Also 'anything made for use from raw or prepared materials'." (p. 11)

And the Court quoting from *Hartranft v. Wiegmann*, 121 U. S. 609, stated:

> 'There must be transformation; a new and different article must emerge 'having a distinctive name, character or use'." (p. 13)

The patentee Bond does not claim a new and different article or a transformation of an article or a transformation of substance or a new combination of elements. All he claims is an old combination of old elements in the same arrangement that they have always been used and for the same old purpose.

Neither can the product of the claims in suit be said to be a true composition of matter for here the individual elements lose their identity and the composition takes on qualities that neither of the individual elements possessed. *P. E. Sharpless Co. v. Crawford Farms, Inc.*, (CCA 2) 25 F. (2d) 658. If the elements of the composition of matter do not lose their identity, or if results are not obtained by the combination of elements that are not obtained by either of the elements used alone, then we have only a mixture of independent substances.

For these reasons, the Circuit Court of Appeals is in error in reversing the holding of the District Court.

V.

Public Importance.

In view of the vast increase in fundamental research and the impetus in the use of bacteria in medicines and industrial products as well as in the field of agriculture upon which the life of this nation and other nations depend, the correctness and soundness of this decision of the Circuit Court of Appeals for the Seventh Circuit and the assertion of patent rights under it is of great moment to the public. Unless the fundamental question* raised here is now settled by this Court this decision will cause judicial controversy for years to come regardless of the fact that the Patent Statute R. S. 4886 does not provide for patent protection on mere discoveries.

The possession and assertion of patent rights are "issues of great moment to the public." *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U. S. 238, 246. See also *Mercoid Corp. v. Mid-Continent Investment Co.*, 320 U. S. 661, 665; *Morton Salt Co. v. Suppiger Co.; United States v. Masonite Corp.*, 316 U. S. 265, 278.

A patent by its very nature is affected with a public interest. The far-reaching social and economic consequences of a patent, therefore, give the public a paramount interest in seeing that patent monopolies spring from backgrounds free from fraud or other inequitable conduct **and that such monopolies are kept within their legitimate scope.** *Precision Instrument Manufacturing Co. et al. v. Automotive Maintenance Machinery Co.*, 324 U. S. 806, 816.

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* See Footnote No. 1, page 36.

VI.

A Product Claim That Relies For Its Novelty Upon a Statement of Function is Invalid.

The Bond claims describe the most crucial element of his alleged invention in terms of what the bacteria will not do, rather than in terms of their own physical characteristics. In the claims, the bacteria are said to be "selected cultures of different species of bacteria of the genus Rhizobium * * * said cultures being substantially unaffected by each other in respect to their ability to fix nitrogen in the leguminous plant for which they are specific." (Claim 1, R-779).

In the case of *Halliburton Oil Well Cementing Co. v. Walker*, 329 U. S. 1, 9, this Court said:

> "The language of the claim thus describes this most crucial element in the new combination in terms of what it will do rather than in terms of its own physical characteristics or its arrangement in the new combination apparatus. We have held that a claim with such a description of a product is invalid as a violation of Rev. Stat. 4888; *Holland Furniture Co. v. Perkins Glue Co.*, 277 U. S. 245, 256-57; *General Electric Co. v. Wabash Appliance Corporation, supra.*"

The fact that this patent is on the verge of monopolizing and controlling the complete inoculant industry for years to come in view of the universal practice of farmers to use mixed seedings of clover and alfalfa requiring the use of mixed inoculants, makes it essential in the public interest that this vast monopoly be controlled strictly in accordance with the patent statute and within the principles of law announced by this Court.

We earnestly submit that this Court should order up this case.

Respectfully submitted,

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